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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Axel Nickel

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EXAMINER

EWALD, MARIA VERONICA

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,651	Applicant(s) NICKEL ET AL.	
	Examiner MARIA VERONICA D. EWALD	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 18 – 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 18 and 19 both claim that the connector is “positioned and removable in a vertical direction.” However, there is no support for such a feature in Applicant's specification. The specification (page 2, lines 10 – 13, 20 – 23; page 4, lines 24 – 27; page 6, lines 1 – 5 and 28 – 30) describe a removable connector with a deformable seal, allowing the nozzle bar to be removed. There is no teaching in the specification, however, of the direction in which the connector is removed, but only that it can be disconnected.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 4, 6, 7 – 8, 9 – 10, 12 and 14 – 17 are rejected under 35

U.S.C. 102(b) as being anticipated by Allen, et al. (U.S. 5,445,509). Allen, et al. teach a melt-blow head comprising: a rectilinear row of nozzle bores arranged in a nozzle bar (item 13 – figure 1; column 3, lines 39 – 55), the nozzle bores configured to produce endless filaments formed from a melt (column 3, lines 45 – 47) and associated with blowing slots in the form of longitudinal slots (items 55 and 56 – figure 5) of two slot plates for feeding blowing air at an angle to the nozzle bores (items 43 and 44 – figure 5) to which the melt is fed through a distributor (item 22 – figure 5), wherein the nozzle bar is fixed in a defined position with respect to the slot-plates and removable therefrom in a vertical direction (figure 5; column 5, lines 1 – 16, 60 – 68); the distributor being supplied with the melt through a feeding pipe (item 17 – figure 1), the feeding pipe leading from a lateral inlet via a redirecting means in a vertical direction to the distributor (figures 1 and 3); and the inlet connected to a melt pipe through a removable connector (item 17 – figure 5; column 4, lines 25 – 37); wherein the nozzle bar is laterally enclosed by air feed blocks with horizontal and vertical walls (figure 5), said air feed blocks being arranged parallel to the row of nozzle bores (figures 1 and 5) and contacted by the nozzle bar with a step (item 42 – figure 5) with horizontal and vertical legs (figure 5), a slot-plate in contact with each air feed block against a stop and leaving open a space with respect to the air feed block, for supplying the blow air to the longitudinal slots (figure 5); wherein the melt pipe is provided in the region of the connector with a shut-off valve (item 15 – figure 5; column 4, lines 25 – 35); wherein the melt pipe is movable

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with the connector with the latter removed, in relation to the inlet (figure 5; column 4, lines 25 – 35).

With respect to claims 6, 7 – 8, 9 – 10, 12 and 14 – 17, Allen, et al. further teach that the slot-plates extend in a concave rounded section on a side opposite the nozzle bar (figures 5 – 6); wherein the melt pipe is provided in the region of the connector with a shut-off valve (item 15 – figure 5); wherein the melt pipe is movable with its connector, with the latter removed, in relation to the inlet (figure 5; column 4, lines 25 – 35); wherein there is a second distributor through which melt is fed (figure 2; column 4, lines 5 – 25).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen, et al. in view of Allen (U.S. 6,210,141). Allen, et al. teach the characteristics previously described but do not teach that there is a deformable seal with the connector.

In a method to produce filaments, Allen teaches the use of a modular die assembly with a quick-change die tip or nozzle. The assembly can be comprised of one unit or several units depending on the size and number of filaments being extruded (figure 1; column 9, lines 10 – 20). Furthermore, the reference teaches that O-rings may

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be mounted around the passages extending from the distributor or manifold (item 11 – figure 2; column 9, lines 18 – 19) into the die body. The O-rings prevent any leakage of material from the manifold, since it is known to one of ordinary skill in the art that O-rings are typically used as seals to deter leakage and/or maintain a seal where a gap or opening may occur. This suggests the use of a deformable seal with the connector.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the apparatus of Allen, et al. with the O-rings of Allen, placed at the connector for the purpose of preventing any leakage of melt as the polymer is fed from the extruder or other source through the feed pipe into the distributor.

Response to Arguments

16. Applicant's arguments filed March 6, 2008 have been fully considered but they are not persuasive. Applicant argues that the primary reference of Allen, et al. (U.S. 5,445,509) does not teach a nozzle bar "removable in a vertical direction." Applicant has argued that because the nozzle tip (item 13 – figure 5) is removed from the underside of the die assembly, it cannot be removed in a vertical direction. The Examiner disagrees. Once the bolts (items 46 and 66 – figure 5) are unscrewed, the die tip is removed from the underside as indicated by Applicant, but it can be removed in a vertical direction, such that its movement is *vertically downwards from the assembly*. Thus, the die tip is still removable in a vertical direction.

With respect to the remaining arguments with the secondary reference, the Examiner maintains the rejection(s) as both the primary and secondary references are still deemed pertinent, since the Examiner believes that Allen, et al. still teach (as discussed above) a nozzle bar removable in a vertical direction.

With respect to the addition of claims 18 – 19, the Examiner notes that the limitation stating that the connector is removable in a vertical direction is not supported in the specification and thus, has been rejected as new matter. As stated previously, the specification identifies a removable connector connecting the lateral inlet to the feed pipe, such that the connector is also comprised of a deformable seal, allowing the dismantling of the nozzle bar. However, the specification does not identify the connector being removable in a vertical direction.

The Examiner also notes, however, that claims 18 – 19 have not been further rejected as being anticipated by prior art because the closest prior art references do not teach or suggest that the lateral inlet and the redirecting means is housed in the nozzle bar and also do not teach or suggest that there are no feeding pipes positioned above the nozzle bar.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIA VERONICA D. EWALD whose telephone number is (571)272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogendra N Gupta/
Supervisory Patent Examiner, Art Unit 1791

MVE